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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/540,690 | 04/11/2006 | Jiang Cheng | CN 020039 | 8970 |

24737 7590 03/15/2010
PHILIPS INTELLECTUAL PROPERTY & STANDARDS
P.O. BOX 3001
BRIARCLIFF MANOR, NY 10510

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| EXAMINER |
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CASCA, FRED A

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| ART UNIT | PAPER NUMBER |
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2617

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| MAIL DATE | DELIVERY MODE |
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03/15/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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|------------------------------|--------------------------------------|-------------------------------------|--|
| Office Action Summary | Application No. 10/540,690 | Applicant(s) CHENG ET AL. | |
| | Examiner FRED A. CASCA | Art Unit 2617 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 November 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4,7-15,18,21-29,32 and 35-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,7-15,21-29, and 35-42 is/are rejected.
- 7) ☒ Claim(s) 4,18 and 32 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to applicant's amendment filed on November 30, 2009. Claims 1, 4, 7-15, 18, 21-29, 32, 35-42 are still pending in the present application. **This Action is made FINAL.**

Priority

2. The Examiner has acknowledged the Applicant's claim for foreign priority under 35 U.S.C. § 119 and the receipt of certified copy of Foreign Priority Japanese Application P2005-167234. However, a certified and *perfected* copy of the priority document, Chinese Application 02160404.5 has not been submitted to the USPTO, since the provided Chinese Application 02160404.5 is not in English. It is respectfully requested that a certified and perfected copy of the priority document be submitted in order to overcome reference Schleich et al (US 2005/0068194 A1). Reference Schleich discloses the main concepts of applicant's claimed invention and can be used as a potential reference in the rejection of applicant's claimed invention.

In the Office Action dated August 31, 2009, the examiner requested that a certified and perfected copy of the priority document be submitted in order for the application to be awarded the claimed priority date. However, the applicant has not provided such certified and perfected copy of the priority document. It is respectfully requested that a certified and perfected copy of the priority document be submitted.

Claim Objections

3. Claims 4, 18 and 32 are objected to because they fail to further narrow the scope of the claims. Since independent claims 1, 15 and 29 are Markush-type claims and they recite

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alternative claim limitations, e.g., “from the a group consisting of (a) a statistical configuration method of said radio RF resources based on a number of requests for accessing each of said different wireless communication schemes for calculating a traffic ratio in either (i) a whole interval or (ii) a sub-interval of said whole interval, and (b) a type of wireless communication scheme,” and the examiner's rejections is based on alternative (b) a type of wireless communication scheme, claims 4, 18 and 32 fail to further narrow the scope of the claims. see MPEP 803.02 [R-5].

Claim Rejections –35 U.S.C. 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1, 7-9, 11-13, 15, 21-23, 25-27, 29, 35-37 and 39-41 are rejected under 35 U.S.C. 102(e) are rejected under 35 U.S.C. 103(a) as being anticipated by Mashinsky et al (US 2003/0050070 A1).

Referring to claim 1, Mashinsky discloses a method for radio RF resources allocation in multi-standard wireless communication systems (Fig. 1-3 and Par. 14, 20 and 37), comprising:

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(a) detecting a plurality of received signals transmitted from an uplink device (Par. 39, “requests from any one of a wireless device”, “request are examined by the spectrum management server 23”, note that an uplink device is interpreted as any device that transmits or receives uplink signals. Further note that the requests received from the wireless device has to be detected in order to be evaluated), wherein said signals contain information on the types of the different wireless communication schemes which are requested to access (Par 39-41, “It handles the use of spectrum through intelligent allocation using requests”, “request may have different characteristics associated with it”, “requests ... may contain a list of network towers”, “server 23 ... is programmed to optimize device/base station parings so as to maximally exploit the air interface capabilities of both”); and

(b) allocating the radio RF resources shared by said different communications schemes according to selection selected from a group consisting of a type of communication scheme (Fig. 3-10, Par. 38-42, “spectrum management layer 22 is a highly intelligent ... It handles the use of spectrum through intelligent allocation using requests”, “management layer 22 that is responsible for determining available network channels for a given transmission and for allocating channels to wireless devices”).

Note that claim 1 is a Markush-type claim and it recites alternative claim limitations, e.g., “from the a group consisting of (a) a statistical configuration method of said radio RF resources based on a number of requests for accessing each of said different wireless communication schemes for calculating a traffic ratio in either (i) a whole interval or (ii) a sub-interval of said

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whole interval, and (b) a type of wireless communication scheme.” The examiner's rejection is based on alternative limitation (b) a type of wireless communication scheme. Thus, the limitation “(a) a statistical configuration method of said radio RF resources based on a number of requests for accessing each of said different wireless communication schemes for calculating a traffic ratio in either (i) a whole interval or (ii) a sub-interval of said whole interval” is not addressed in the rejection. See MPEP 803.02 [R-5].

Referring to claim 7, Mashinsky discloses the method of claim 1, and further discloses step b includes steps: b1, judging whether there are RF resources available for the requests for accessing said different wireless communication schemes (Par. 37, 38-39 and 41-42, “available spectrum”, “available capacity”, “available network channels”); and b2, allocating said available RF resources to said requests, if there are RF resources available for said requests (Mashinsky, Fig. 3-5 and 9-10, Par. 37, 38-39 and 41-42, “all such queries and selection of available network carriers may be performed automatically”).

Referring to claim 8, Mashinsky discloses the method of claim 1, wherein step (b) further includes: (b1) pre-allocating said RF resources to a specific communication scheme (Par. 37 and 39, “GPRS ... CDPD”) (Par. 37, 38-39 and 41-42, “all such queries and selection of available network carriers may be performed automatically”); (b2) judging whether there are RF resources available for the requests for accessing the different wireless communication schemes, if the different

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wireless communication schemes are not the specific communication scheme (Par. 37, 38-39 and 41-42, “available spectrum”, “available capacity”, “available network channels”); and (b3) allocating said available RF resources to said requests, if there are RF resources available for said requests (Par. 37, 38-39 and 41-42, “all such queries and selection of available network carriers may be performed automatically, “determining available network channels ... allocating channels”).

Referring to claim 9, Mashinsky discloses the method of claim 7, wherein step (b2) and (b3) are executed in following condition: subscribers send said connection requests for accessing said different wireless communication schemes (Par. 37-39 and 40-41, “mode”, “band”).

Referring to claim 11, Mashinsky discloses the method of claim 7, wherein step b3 further discloses (i) judging whether there are RF carrier available for said requests, if there are no RF resources available for said requests for accessing said wireless communication schemes; and (ii) allocating said available RF carder to said wireless communication schemes, if there are RF carriers available for said requests, and allocating the corresponding RF resources to said requests (Par. 37, 38-39 and 41-42, “all such queries and selection of available network carriers may be performed automatically, “determining available network channels ... allocating channels”).

Referring to claim 12, Mashinsky discloses the method of claim 11, wherein step (ii) inherently disclose when the communications employing said wireless

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communication schemes ends, said RF carriers allocated to said requests are released (Mashinsky, Par. 37 and 38-41).

Referring to claim 13, Mashinsky discloses the method of claim 11, wherein step (ii) inherently discloses if there are no RF carriers available for said requests, said requests are rejected Mashinsky, Par. 37 and 38-41).

Claim 15 recites features analogous to the features of claim 1, thus, Mashinsky discloses all elements of claim 15 (please see the rejection of claim 1 above).

Claims 21-23 recite features analogous to the features of claims 7-9. Thus, they are rejected for the same reasons that claims 7-9 were rejected.

Claims 25-27 recite features analogous to the features of claims 11-13. Thus, they are rejected for the same reasons that claims 11-13 are rejected.

Claims 29, 35, 36 and 37 recite features analogous to the features of claims 1, 7, 8, and 9 respectively. Thus, Mashinsky discloses all elements of claims 29, 35, 36, and 37.

Claims 39-41 recite features analogous to the features of claims 11-13. Thus, they are rejected for the same reasons that claims 11-13 are rejected.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 10, 14 24, 28, 38 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mashinsky et al (US 2003/0050070 A1) in view of well known prior art (MPEP 2144.03).

Referring to claim 10, of Mashinsky discloses the method of claim 7.

Mashinsky does not specifically disclose subscribers which carry out cell handover send handover requests for accessing different wireless communication schemes, in the format claimed by applicant.

The examiner takes official notice of the fact that the concept of subscribers carrying out cell handover (e.g., MAHO) request is well known in the art.

It would have been obvious to one of the ordinary skill in the art at the time of invention to modify the method of Mashinsky such that a MAHO subscriber would request for accessing different wireless schemes, for the purpose of relieving

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the network from such functions and thus providing an efficient communication system.

Claims 24 and 38 recite features analogous to the features of claim 10. Thus claims 24 and 38 are rejected for the same reasons/arguments that were used in the rejection of claim 10.

Referring to claim 14, of Mashinsky discloses the method of claim 1.

Mashinsky is silent on whether or not the wireless communication schemes include at least two of the following: IS-95, CDMA, GSM, TSM, GPRS, TD-SCDMA, W-CDMA, cdma2000 and WLAN.

The examiner takes official notice of the fact that IS-95, CDMA, GSM, TSM, GPRS, TD-SCDMA, W-CDMA, cdma2000 and WLAN are well known wireless schemes and are used conventionally in wireless communication systems.

It would have been obvious to one of the ordinary skill in the art at the time of invention to modify the method of Mashinsky such that two of the well known wireless schemes are used interchangeably, for the purpose of providing an efficient communication scheme.

Claims 28 and 42 recite features analogous to the features of claim 14. Thus they are rejected for the same reasons/arguments that were used in the rejection of claim 14.

Response to Arguments

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8. Applicant's arguments with respect to claims *1,4,7-15,18,21-29,32 and 35-42* have been considered but are moot in view of the new ground(s) of rejection.

Applicant's amendments overcome the rejection of claims under 35 USC 112, first paragraphs, and 35 USC 112, second paragraphs. Accordingly, the rejections under 35 USC 112, first paragraphs, and 35 USC 112, second paragraphs are withdrawn.

In response to arguments that the limitation of claims 10, 24 and 38 are not well known concepts, the examiner respectfully disagrees.

Reference Melpignano (US 2002/0176445, hereinafter Melpignano) discloses that a mobile terminal requests for a handoff (see par. 99). Further, Reference Austin et al (US 7,123,893, hereinafter Austin) discloses a MAHO terminal sends pilot signals to assist in a handoff procedure (see col. 9, lines 40-53). Further, reference Rinne et al (US 2003/0119550, hereinafter Rinne) discloses an inter-system handover between two different radio access technologies (RATs) and, more particularly, an intersystem handover accomplished by a dual-system mobile phone capable of communicating with both systems (see abstract and Paragraphs 2, 4, 6 and 9). Thus, the concept of the subscriber (mobile terminal) requesting a handover is well known in the art. Further, the dual mode subscriber of Rinne teaches an inter-system handoff. With reference to the intermediate claim 7 upon which claim 10 depends, paragraph. 37, 38-39 and 41-42 of Mashinsky discloses the limitations of claim 7. Thus, it would have obvious to a person of ordinary skill in the art to use one or two of the above references to obtain the claimed invention.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

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the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fred A. Casca whose telephone number is (571) 272-7918. The examiner can normally be reached on Monday through Friday from 9 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Harper, can be reached at (571) 272-7605. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Fred Casca/

Patent Examiner, Art Unit 2617

/VINCENT P. HARPER/

Supervisory Patent Examiner, Art Unit 2617